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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,143	01/30/2004	Jai N. Subrahmanyam	K35A1290	9536

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WESTERN DIGITAL TECHNOLOGIES, INC.  
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EXAMINER

KAPADIA, VARSHA A

ART UNIT PAPER NUMBER

2651

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/769,143

Applicant(s)

SUBRAHMANYAM ET AL.

Examiner

Varsha A. Kapadia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/30/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Information Disclosure**

The information disclosure statement (IDS) submitted on 1/30/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### **Rejection Under 35 U.S.C. 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed et al (6,115,198) in view of Cloke et al (6,487,032).

With regards to claim 1, Reed et al discloses a disk drive 1-2 and disclosure thereof) comprising a media having tracks identified by binary codewords (see figs.1a-1c , 4 disclosure thereof and abstract), wherein each track codeword for a particular track within contiguous band of tracks differ from the codeword for an adjacent track within a contiguous band by a defined number N of bits, and differs from a track codeword for a non adjacent track within the band of tracks by at least the defined number of N bits (see col.6 line 63 to col.7 lines 57 and col.8 lines 18-36; wherein Reed et al also suggest that when defined number of bit (hamming distance) is greater then at least two bit errors can be corrected).

However, Reed et al fails to clearly define that the number N of bits is greater than 4 as claimed.

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Cloke et al however, discloses that when hamming distance is greater than 4 at least two bit errors can be corrected (see col.36 lines 22-49).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to modify the disk drive disclosed by Reed et al with above teachings from Cloke et al in order to provide track codeword of a particular track differ from the codeword of the adjacent track by 4 or more bits such that two bit errors can be corrected and hence to increase the reliability.

With regards to claims 2-5, Reed et al/ cloke et al discloses the claimed invention except for defining exact number of bits in the codeword and defined number N of bits is 7 or 5 and band of tracks comprises 2048 tracks as specified by the applicant. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to define the specific size of codeword, and the distance, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regards to claims 6-10, the method steps recited in claims 6-10 corresponds to the limitations recited in the apparatus claims 1-5, respectively. Therefore, the rejection applied to the apparatus claims 1-5 above in this office action is also applied to the method claims 6-10 for the same reasons of obviousness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Varsha A. Kapadia whose telephone number is (571)272-7557. The examiner can normally be reached on Mon Tue and Thurs. from 6:30 AM to 2:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571 272 7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VK



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